Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

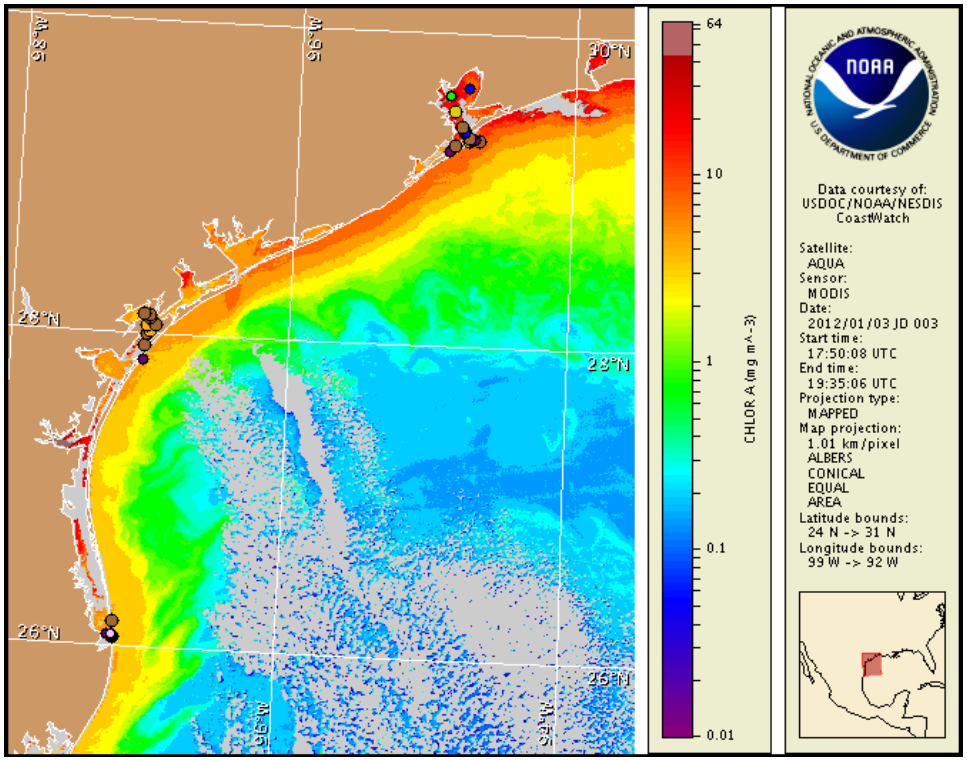
Thursday, 05 January 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Tuesday, January 3, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 26 to January 5 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive: http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

A harmful algal bloom is present along the Texas coast in the Galveston/Freeport area, in the Port Aransas/Aransas Bay area and within Corpus Christi Bay, and the South Padre Island region, and within the lower Laguna Madre. Today through Sunday, patchy moderate impacts are possible in the Galveston Bay and Port Aransas/Corpus Christi Bay areas, patchy low impacts are possible alongshore the South Padre Island region, and patchy very low impacts are possible within the lower Laguna Madre. Water samples last identified harmful algal blooms in the Matagorda Bay area on December 14 and alongshore the Padre Island National Seashore region on November 28. Associated respiratory impacts remain possible in these areas. No additional impacts are expected at the coast in Texas today through Sunday, January 8. All Texas bays and coastal waters remain closed to commercial and recreational oyster harvesting due to blooms of the harmful algae Karenia brevis (red tide).

Analysis

A harmful algal bloom continues along much of the Texas coastline.

No new samples have been received from the Galveston or Matagorda Bay regions. The most recent samples identified 'not present' to 'low b' *Karenia brevis* concentrations in the Galveston Bay region (12/27-28; TPWD), and 'not present' to 'high' concentrations in the Matagorda Bay region (12/5-14; TPWD).

In the Port Aransas region, samples collected on Tuesday at the UTMSI Pier indicate that *K. brevis* has decreased to 'very low a' and 'background' concentrations at the Gulf side of Aransas Pass (1/3; TPWD). The most recent samples collected from the Aransas and Copano bays indicated 'low a' to 'medium' *K. brevis* concentrations (12/27; TPWD).

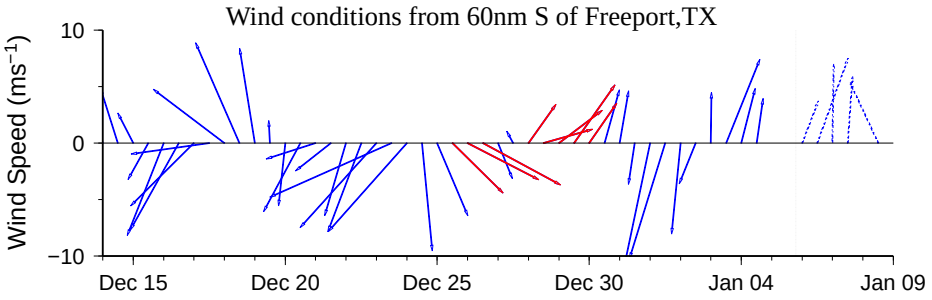
No samples have been received from alongshore Padre Island National Seashore since 'medium' to 'high' *K. brevis* concentrations were identified on 11/28 (TPWD). Recent samples from the South Padre Island region indicate a decrease in *K. brevis* concentrations (1/3-1/5; TPWD). Samples collected over the past few days alongshore the Gulf side of South Padre Island identified 'low a' *K. brevis* concentrations at Beach Access 5 (1/4; TPWD) and 'very low a' concentrations at the UTPA Coastal Studies Lab (1/3-1/5; TPWD). Samples collected within Brazos Santiago Pass indicate that *K. brevis* concentrations have decreased to 'very low b' from 'medium' concentrations reported in late December (1/3; TPWD). Samples collected within the lower Laguna Madre also indicate a decrease from 'medium' concentrations to a range between 'very low b' and 'low a' concentrations at the Isla Blanca boat ramp and 'background' to 'very low a' concentrations just north of the boat ramp at the east end of the Queen Isabella Causeway (1/3-1/5; TPWD). Samples also identified 'very low a' concentrations along the west end of the Queen Isabella Causeway (1/3; TPWD). The most recent sample collected within the Brownsville Ship Channel at the San Martin boat ramp indicated that *K. brevis* is not present (12/20; TPWD).

In MODIS imagery from 1/3 (shown left), elevated chlorophyll (3 to10 μg/L) is visible along- and offshore the Texas coastline from Sabine Pass to the Rio Grande. Patches of high to very high chlorophyll (10 to >20 μg/L) are visible along- and offshore from Sabine Pass to Bolivar Roads Pass (MODIS 1/3) and along- and offshore the Port

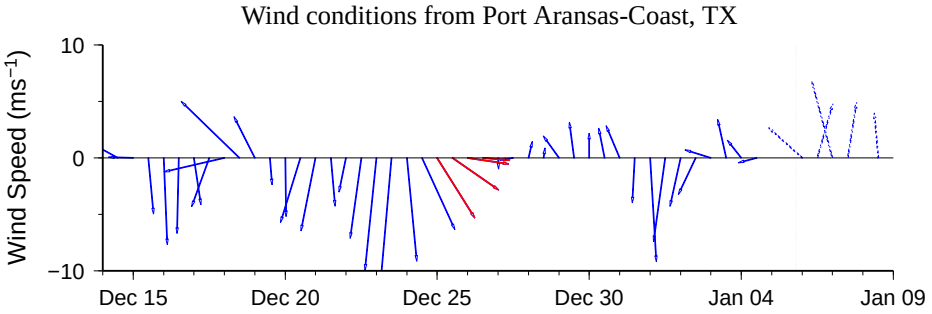
Aransas/Mustang Island area and Padre Island National Seashore (MODIS 1/4, not
s extent and may be due to the continued resuspension of benthic chlorophyll and sediments.
shown). Elevated chlorophyll at the coast is not necessarily indicative of the bloomâ.lf 10

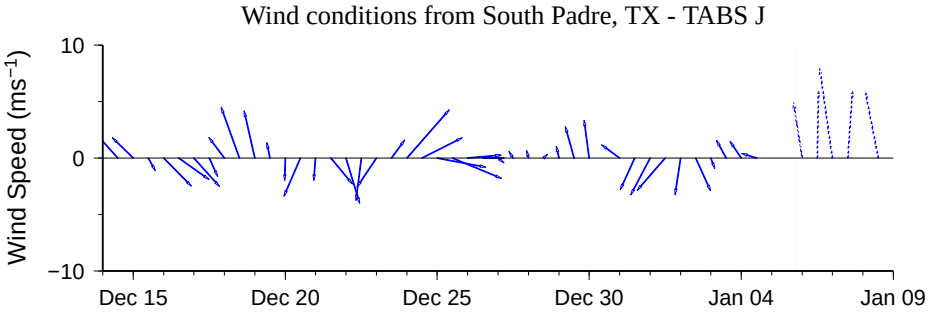
No bloom transport forecast estimates are possible at this time as model data is not presently available. Onshore winds forecasted over the next several days will increase the potential for impacts along the Texas coastline today through Sunday.

Derner, Fisher



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



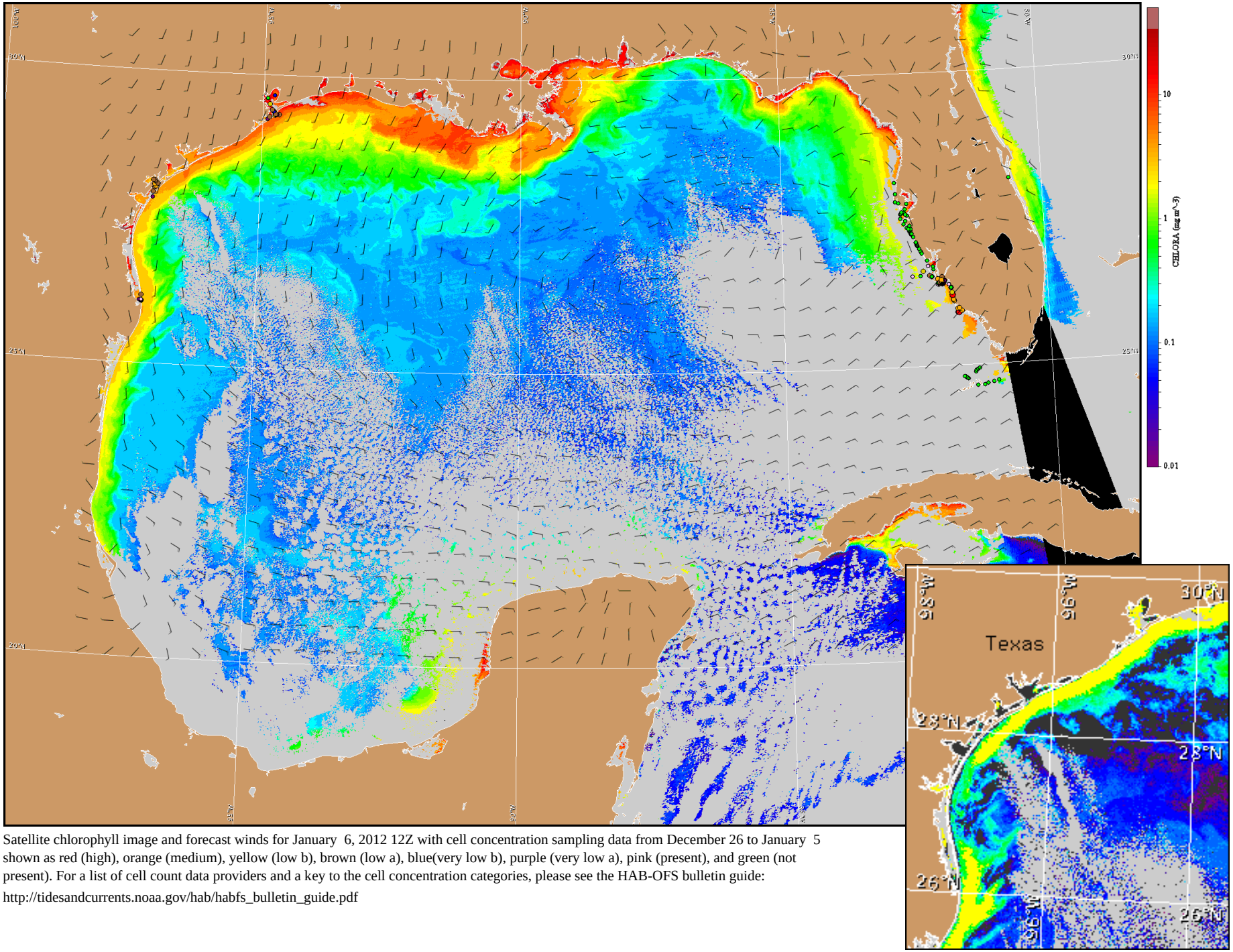


Wind Analysis

Galveston/Freeport: South winds (5-15kn, 3-8m/s) today through Friday. Southwest to south winds (5-10kn, 3-5m/s) Saturday. Southeast winds (5-10kn) Sunday.

Port Aransas: Northeast winds (5kn, 3m/s) today shifting southeast late in the afternoon. South winds (10-15kn) tonight through Friday. Southwest to south winds (5-15kn) Saturday becoming southeast (5-10kn) Saturday night through Sunday.

South Padre: South winds (10-20kn, 5-10m/s) today through Saturday. Southeast winds (15kn, 8m/s) Sunday.



Satellite chlorophyll image and forecast winds for January 6, 2012 12Z with cell concentration sampling data from December 26 to January 5 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).